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<110> INYCTE PHARMACEUTICALS, INC.; HILLMAN, Jennifer L.
      LAL, Preeti; TANG, Y. Tom
      CORLEY, Neil C.; GUEGLER, Karl J.
      BAUGHN, Mariah R.; PATTERSON, Chandra
      BANDMAN, Olga; AU-YOUNG, Janice
      GORGONE, Gina A.; YUE, Henry
      AZIMZAI, Yalda; REDDY, Roopa
      LU, Dyung Aina M.; SHIH, Leo L.
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<140> US 09/744,794
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<150> US 99/17132 <151> 1999-07-28

<141> 2001-01-26

<150> US 60/155,233

<151> 1999-01-12 <150> US 60/113,796

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PF-0565 USN
                                     175
Asp Trp Trp Ala Leu Gly Val Cys Leu Phe Glu Phe Leu Thr Gly
                185
                                     190
Ile Pro Pro Phe Asn Asp Glu Thr Pro Gln Gln Val Phe Gln Asn
                200
                                     205
Ile Leu Lys Arg Asp Ile Pro Trp Pro Glu Gly Glu Glu Lys Leu
                215
                                     220
                                                         225
Ser Asp Asn Ala Gln Ser Ala Val Glu Ile Leu Leu Thr Ile Asp
                230
                                     235
Asp Thr Lys Arg Ala Gly Met Lys Glu Leu Lys Arg His Pro Leu
                245
                                     250
Phe Ser Asp Val Asp Trp Glu Asn Leu Gln His Gln Thr Met Pro
                260
                                     265
Phe Ile Pro Gln Pro Asp Asp Glu Thr Asp Thr Ser Tyr Phe Glu
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Ala Arg Asn Thr Ala Gln His Leu Thr Val Ser Gly Phe Ser Leu
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50
Glu Asp Glu Ile Glu Asp Ile Gln Gln Glu Ile Thr Val Leu Ser
                                      70
                 65
Gln Cys Asp Ser Pro Tyr Val Thr Lys Tyr Tyr Gly Ser Tyr Leu
                 80
                                      85
Lys Asp Thr Lys Leu Trp Ile Ile Met Glu Tyr Leu Gly Gly Gly
                 9.5
                                     100
Ser Ala Leu Asp Leu Leu Glu Pro Gly Arg Leu Asp Glu Thr Gln
                110
                                     115
Ile Ala Thr Ile Leu Arg Glu Ile Leu Lys Gly Leu Asp Tyr Leu
                125
                                     130
His Ser Glu Lys Lys Ile His Arg Asp Ile Lys Ala Ala Asn Val
                140
                                     145
Leu Leu Ser Glu His Gly Glu Val Lys Leu Ala Asp Phe Gly Val
                                     160
                155
Ala Gly Gln Leu Thr Asp Thr Gln Ile Lys Arg Asn Thr Phe Val
                170
                                     175
Gly Thr Pro Phe Trp Met Ala Pro Glu Val Ile Lys Gln Ser Ala
                185
                                     190
Tyr Asp Ser Lys Ala Asp Ile Trp Ser Leu Gly Ile Thr Ala Ile
                200
                                     205
Glu Leu Ala Arg Gly Glu Pro Pro His Ser Glu Leu His Pro Met
                215
                                     220
Lys Val Leu Phe Leu Ile Pro Lys Asn Asn Pro Pro Thr Leu Glu
                                     235
                230
Gly Asn Tyr Ser Lys Pro Leu Lys Glu Phe Val Glu Ala Cys Leu
                                     250
                245
Asn Lys Glu Pro Ser Phe Arg Pro Thr Ala Lys Glu Leu Leu Lys
                260
                                     265
His Lys Phe Ile Leu Arg Asn Ala Lys Lys Thr Ser Tyr Leu Thr
                275
                                     280
Glu Leu Ile Asp Arg Tyr Lys Arg Trp Lys Ala Glu Gln Ser His
                                     295
                290
Asp Asp Ser Ser Ser Glu Asp Ser Asp Ala Glu Thr Asp Gly Gln
                305
                                     310
Ala Ser Gly Gly Ser Asp Ser Gly Asp Trp Ile Phe Thr Ile Arg
                                     325
                320
Glu Lys Asp Pro Lys Asn Leu Glu Asn Gly Ala Leu Gln Pro Ser
                335
                                     340
Asp Leu Asp Arg Asn Lys Met Lys Asp Ile Pro Lys Arg Pro Phe
                350
                                     355
Ser Gln Cys Leu Ser Thr Ile Ile Ser Pro Leu Phe Ala Glu Leu
                                     370
Lys Glu Lys Ser Gln Ala Cys Gly Gly Asn Leu Gly Ser Ile Glu
                380
                                     385
Glu Leu Arg Gly Ala Ile Tyr Leu Ala Glu Glu Ala Cys Pro Gly
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                                     400
Ile Ser Asp Thr Met Val Ala Gln Leu Val Gln Arg Leu Gln Arg
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                                     415
Tyr Ser Leu Ser Gly Gly Gly Thr Ser Ser His
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Ser Ile Gly Thr Val Gly Thr Gln Asp Val Asp Cys Asp Phe Ile
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Asp Phe Thr Tyr Val Arg Val Ser Ser Glu Glu Leu Asp Arg Ala
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                                                           7.5
Leu Arg Lys Val Val Gly Glu Phe Lys Asp Ala Leu Arg Asn Ser
                                      85
Gly Gly Asp Gly Leu Gly Gln Met Ser Leu Glu Phe Tyr Gln Lys
                 95
                                     100
                                                          105
Lys Lys Ser Arg Trp Pro Phe Ser Asp Glu Cys Ile Pro Trp Glu
                110
                                     115
Val Trp Thr Val Lys Val His Val Val Ala Leu Ala Thr Glu Gln
                125
                                     130
Glu Arg Gln Ile Cys Arg Glu Lys Val Gly Glu Lys Leu Cys Glu
                140
                                     145
Lys Ile Ile Asn Ile Val Glu Val Met Asn Arg His Glu Tyr Leu
                155
                                     160
                                                          165
Pro Lys Met Pro Thr Gln Ser Glu Val Asp Asn Val Phe Asp Thr
                170
                                     175
Gly Leu Arg Asp Val Gln Pro Tyr Leu Tyr Lys Ile Ser Phe Gln
                185
                                     190
                                                          195
Ile Thr Asp Ala Leu Gly Thr Ser Val Thr Thr Thr Met Arg Arg
                200
                                     205
                                                          210
Leu Ile Lys Asp Thr Leu Ala Leu
                215
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                 2.0
                                      2.5
Thr Glu Gln Phe Asn Gln Leu His Asn Arg Arg Asn Glu Asn Leu
                 35
                                      40
Gln Leu Gly Pro Leu Gly Arg Asp Pro Pro Gln Glu Cys Ser Thr
                 50
                                      55
Phe Ser Pro Thr Asp Ser Gly Glu Glu Pro Gly Gln Leu Ser Pro
                 65
                                      70
Gly Val Gln Phe Gln Arg Arg Gln Asn Gln Arg Arg Phe Ser Met
                 80
                                      85
Glu Asp Val Ser Lys Arg Leu Ser Leu Pro Met Asp Ile Arg Leu
                 95
                                     100
                                                          105
Pro Gln Glu Phe Leu Gln Lys Leu Gln Met Glu Ser Pro Asp Leu
                110
                                     115
Pro Lys Pro Leu Ser Arg Met Ser Arg Arg Ala Ser Leu Ser Asp
                125
                                     130
Ile Gly Phe Gly Lys Leu Glu Thr Tyr Val Lys Leu Asp Lys Leu
                                     145
                140
Gly Glu Gly Thr Tyr Ala Thr Val Phe Lys Gly Arg Ser Lys Leu
                                     160
                155
Thr Glu Asn Leu Val Ala Leu Lys Glu Ile Arg Leu Glu His Glu
                170
                                     175
                                                          180
Glu Gly Ala Pro Cys Thr Ala Ile Arg Glu Val Ser Leu Leu Lys
                185
                                     190
                                                          195
Asn Leu Lys His Ala Asn Ile Val Thr Leu His Asp Leu Ile His
                200
                                     205
                                                          210
Thr Asp Arg Ser Leu Thr Leu Val Phe Glu Tyr Leu Asp Ser Asp
                                                          225
                215
                                     220
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Leu Lys Gln Tyr Leu Asp His Cys Gly Asn Leu Met Ser Met His

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235
                230
Asn Val Lys Ile Phe Met Phe Gln Leu Leu Arg Gly Leu Ala Tyr
                245
                                     250
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Cys His His Arg Lys Ile Leu His Arg Asp Leu Lys Pro Gln Asn
                260
                                     265
Leu Leu Ile Asn Glu Arg Gly Glu Leu Lys Leu Ala Asp Phe Gly
                275
                                     280
                                                          285
Leu Ala Arg Ala Lys Ser Val Pro Thr Lys Thr Tyr Ser Asn Glu
                290
                                     295
Val Val Thr Leu Trp Tyr Arg Pro Pro Asp Val Leu Leu Gly Ser
                305
                                     310
                                                          315
Thr Glu Tyr Ser Thr Pro Ile Asp Met Trp Gly Val Gly Cys Ile
                320
                                     325
His Tyr Glu Met Ala Thr Gly Arg Pro Leu Phe Pro Gly Ser Thr
                335
                                     340
Val Lys Glu Glu Leu His Leu Ile Phe Ary Leu Leu Gly Thr Pro
                350
                                     355
Thr Glu Glu Thr Trp Pro Gly Val Thr Ala Phe Ser Glu Phe Arg
                365
                                     370
                                                          375
Thr Tyr Ser Phe Pro Cys Tyr Leu Pro Gln Pro Leu Ile Asn His
                                                          390
                380
                                     385
Ala Pro Arg Leu Asp Thr Asp Gly Ile His Leu Leu Ser Ser Leu
                395
                                     400
Leu Leu Tyr Glu Ser Lys Ser Arg Met Ser Ala Glu Ala Ala Leu
                410
                                     415
                                                          420
Ser His Ser Tyr Phe Arg Ser Leu Gly Glu Arg Val His Gln Leu
                425
                                     430
Glu Asp Thr Ala Ser Ile Phe Ser Leu Lys Glu Ile Gln Leu Gln
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                                     445
Lys Asp Pro Gly Tyr Arg Gly Leu Ala Phe Gln Gln Pro Gly Arg
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Gly Lys Asn Arg Arg Gln Ser Ile Phe
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His Lys Leu Ala Asp Leu Arg Tyr Leu Ser Arg Gly Ala Ser Gly
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Thr Val Ser Ser Ala Arg His Ala Asp Trp Arg Val Gln Val Ala
                 35
                                      40
Val Lys His Leu His Ile His Thr Pro Leu Leu Asp Ser Glu Arg
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                                      55
Lys Asp Val Leu Arg Glu Ala Glu Ile Leu His Lys Ala Arg Phe
                                      70
                 65
Ser Tyr Ile Leu Pro Ile Leu Gly Ile Cys Asn Glu Pro Glu Phe
                 80
                                      85
Leu Gly Ile Val Thr Glu Tyr Met Pro Asn Gly Ser Leu Asn Glu
                 95
                                     100
                                                          105
Leu Leu His Arg Lys Thr Glu Tyr Pro Asp Val Ala Trp Pro Leu
```

Arg Phe Arg Ile Leu His Glu Ile Ala Leu Gly Val Asn Tyr Leu

His Asn Met Thr Pro Pro Leu Leu His His Asp Leu Lys Thr Gln

Asn Ile Leu Leu Asp Asn Glu Phe His Val Lys Ile Ala Asp Phe

Gly Leu Ser Lys Trp Arg Met Met Ser Leu Ser Gln Ser Arg Ser

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170
                                     175
Ser Lys Ser Ala Pro Glu Gly Gly Thr Ile Ile Tyr Met Pro Pro
                185
                                     190
                                                         195
Glu Asn Tyr Glu Pro Gly Gln Lys Ser Arg Ala Ser Ile Lys His
                200
                                     205
Asp Ile Tyr Ser Tyr Ala Val Ile Thr Trp Glu Val Leu Ser Arg
                215
                                     220
                                                         225
Lys Gln Pro Phe Glu Asp Val Thr Asn Pro Leu Gln Ile Met Tyr
                                     235
                230
Ser Val Ser Gln Gly His Arg Pro Val Ile Asn Glu Glu Ser Leu
                245
                                     250
Pro Tyr Asp Ile Pro His Arg Ala Arg Met Ile Ser Leu Ile Glu
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                                     265
Ser Gly Trp Ala Gln Asn Pro Asp Glu Arg Pro Ser Phe Leu Lys
                275
                                     280
Cys Leu Ile Glu Leu Glu Pro Val Leu Arg Thr Phe Glu Glu Ile
                290
                                     295
Thr Phe Leu Glu Ala Val Ile Gln Leu Lys Lys Thr Lys Leu Gln
                305
                                     310
                                                         315
Ser Val Ser Ser Ala Ile His Leu Cys Asp Lys Lys Lys Met Glu
                320
                                     325
                                                         330
Leu Ser Leu Asn Ile Pro Val Asn His Gly Pro Gln Glu Glu Ser
                335
                                     340
Cys Gly Ser Ser Gln Leu His Glu Asn Ser Gly Ser Pro Glu Thr
                350
                                     355
Ser Arg Ser Leu Pro Ala Pro Gln Asp Asn Asp Phe Leu Ser Arg
                365
                                     370
                                                         375
Lys Ala Gln Asp Cys Tyr Phe Met Lys Leu His His Cys Pro Gly
                380
                                     385
                                                         390
Asn His Ser Trp Asp Ser Thr Ile Ser Gly Ser Cln Arg Ala Ala
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                                     400
Phe Cys Asp His Lys Thr Thr Pro Cys Ser Ser Ala Ile Ile Asn
                410
                                     415
Pro Leu Ser Thr Ala Gly Asn Ser Glu Arg Leu Gln Pro Gly Ile
                425
                                     430
Ala Gln Gln Trp Ile Gln Ser Lys Arg Glu Asp Ile Val Asn Gln
                440
                                     445
                                                          450
Met Thr Glu Ala Cys Leu Asn Gln Ser Leu Asp Ala Leu Leu Ser
                455
                                     460
Arg Asp Leu Ile Met Lys Glu Asp Tyr Glu Leu Val Ser Thr Lys
                470
                                     475
                                                         480
Pro Thr Arg Thr Ser Lys Val Arg Gln Leu Leu Asp Thr Thr Asp
                485
                                     490
                                                         495
Ile Gln Gly Glu Glu Phe Ala Lys Val Ile Val Gln Lys Leu Lys
                500
                                     505
                                                         510
Asp Asn Lys Gln Met Gly Leu Gln Pro Tyr Pro Glu Ile Leu Val
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Val Ser Arg Ser Pro Ser Leu Asn Leu Leu Gln Asn Lys Ser Met
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 Asp
 Leu
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 Leu
 Glu
 Tyr

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 10
 10
 10
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 Ala
 Lys
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 15

 Ala
 Lys
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Thr Val Ala Asn Asn Gly Met Asn Asn Met Ser Leu Gln Asp
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Ala Glu Trp Tyr Trp Gly Asp Ile Ser Arg Glu Glu Val Asn Glu
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                 65
Lys Leu Arg Asp Thr Ala Asp Gly Thr Phe Leu Val Arg Asp Ala
                 80
                                      85
Ser Thr Lys Met His Gly Asp Tyr Thr Leu Thr Leu Arg Lys Gly
                                     100
                 95
                                                         105
Gly Asn Asn Lys Leu Ile Lys Ile Phe His Arg Asp Gly Lys Tyr
                110
                                     115
                                                         120
Gly Phe Ser Asp Pro Leu Thr Phe Ser Ser Val Val Glu Leu Ile
                                     130
                125
Asn His Tyr Arg Asn Glu Ser Leu Ala Gln Tyr Asn Pro Lys Leu
                140
                                     145
Asp Val Lys Leu Leu Tyr Pro Val Ser Lys Tyr Gln Gln Asp Gln
                155
                                     160
Val Val Lys Glu Asp Asn Ile Glu Ala Val Gly Lys Lys Leu His
                170
                                     175
                                                         180
Glu Tyr Asn Thr Gln Phe Gln Glu Lys Ser Arg Glu Tyr Asp Arg
                185
                                     190
Leu Tyr Glu Glu Tyr Thr Arg Thr Ser Gln Glu Ile Gln Met Lys
                200
                                     205
                                                         210
Arg Thr Ala Ile Glu Ala Phe Asn Glu Thr Ile Lys Ile Phe Glu
                                     220
                215
Glu Gln Cys Gln Thr Gln Glu Arg Tyr Ser Lys Glu Tyr Ile Glu
                230
                                     235
Lys Phe Lys Arg Glu Gly Asn Glu Lys Glu Ile Gln Arg Ile Met
                                     250
                245
His Asn Tyr Asp Lys Leu Lys Ser Arg Ile Ser Glu Ile Ile Asp
                260
                                     265
Ser Arg Arg Arg Leu Glu Glu Asp Leu Lys Lys Gln Ala Ala Glu
                                     280
                275
Tyr Arg Glu Ile Asp Lys Arg Met Asn Ser Ile Lys Pro Asp Leu
                290
                                     295
                                                         300
Ile Gln Leu Arg Lys Thr Arg Asp Gln Tyr Leu Met Trp Leu Thr
                                     310
                305
Gln Lys Gly Val Arg Gln Lys Lys Leu Asn Glu Trp Leu Gly Asn
                                     325
                320
Glu Asn Thr Glu Asp Gln Tyr Ser Leu Val Glu Asp Asp Glu Asp
                335
                                     340
Leu Pro His His Asp Glu Lys Thr Trp Asn Val Gly Ser Ser Asn
                350
                                     355
Arg Asn Lys Ala Glu Asn Leu Leu Arg Gly Lys Arg Asp Gly Thr
                365
                                     370
Phe Leu Val Arg Glu Ser Ser Lys Gln Gly Cys Tyr Ala Cys Ser
                380
                                     385
Val Val Val Asp Gly Glu Val Lys His Cys Val Ile Asn Lys Thr
                395
                                     400
                                                         405
Ala Thr Gly Tyr Gly Phe Ala Glu Pro Tyr Asn Leu Tyr Ser Ser
                410
                                     415
Leu Lys Glu Leu Val Leu His Tyr Gln His Thr Ser Leu Val Gln
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                425
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His Asn Asp Ser Leu Asn Val Thr Leu Ala Tyr Pro Val Tyr Ala
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                                                         450
Gln Gln Arg Arg
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Lys	Ser	Glu	Ile	Trp	Gly	Pro	Gly	Leu	Lys 40	Ala	Asp	Val	Val	Leu 45
Pro	Ala	Arg	Tyr	Phe 50	Tyr	Ile	Gln	Ala	Val 55	Asp	Thr	Ser	Gly	Asn 60
Lys	Phe	Thr	Ser	Ser 65	Pro	Gly	Glu	Lys	Val 70	Phe	Gln	Val	Lys	Val 75
Ser	Ala	Pro	Glu	Glu 80	Gln	Phe	Thr	Arg	Val 85	Gly	Val	Gln	Val	Leu 90
Asp	Arg	Lys	Asp	Gly 95	Ser	Phe	Ile	Val	Arg 100	Tyr	Arg	Met	Tyr	Ala 105
Ser	Tyr	Lys	Asn	Leu 110	Lys	Val	Glu	Ile	Lys 115	Phe	Gln	Gly	Gln	His 120
Val	Ala	Lys	Ser	Pro 125	Tyr	Ile	Leu	Lys	Gly 130	Pro	Val	Tyr	His	Glu 135
Asn	Cys	Asp	Cys	Pro 140	Leu	Gln	Asp	Ser	Ala 145	Ala	Trp	Leu	Arg	Glu 150
				Glu 155					160					165
				Val 170	_			•	175					180
-			_	Gln 185	_				190					195
			Val	200					205				Gly	210
				Asp 215					220					225
-			_	Val 230					235		_	_	_	240
				Lys 245 Thr					250					255
				260					265					270
				Ser 275					280					Leu 285
_				Val 290					295					300
-				Ala 305		-	_	-	310	-		_	_	315
				Val 320	_			_	325					330
				Thr 335					340					345
	-	_		11e 350		_			355			_		360
				Gln 365					370					375
				Leu 380					385					390
				Tyr 395					400					405
				Pro 410 Ala					415					420 Ile
_		_	_	425	_	_		_	430					435
	_		_	Gln 440 Tyr					445					450
_			_	455	_		-		460					465
				Glu 470				_	475	_				480
				Glu 485	_	_	ьeu	rne	490	cys	TILL	cys	піѕ	495
ьys	ьys	TIII	ьys	Asp	GIU	ьeu								

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Lys Ala Gly Ala Tyr Asp Phe Pro Ser Pro Glu Trp Asp Thr Val
                 35
                                      40
Thr Pro Glu Ala Lys Asp Leu Ile Asn Lys Met Leu Thr Ile Asn
                 50
                                      55
Pro Ala Lys Arg Ile Thr Ala Ser Glu Ala Leu Lys His Pro Trp
                 65
                                      70
                                                           75
Ile Cys Gln Arg Ser Thr Val Ala Ser Met Met His Arg Gln Glu
                                      85
                 80
Thr Val Asp Cys Leu Lys Lys Phe Asn Ala Arg Arg Lys Leu Lys
                 95
                                     100
Gly Ala Ile Leu Thr Thr Met Leu Ala Thr Arg Asn Phe Ser Ala
                110
                                     115
Ala Lys Ser Leu Leu Lys Lys Pro Asp Gly Val Lys Glu Ser Thr
                                     130
                125
Glu Ser Ser Asn Thr The Ile Glu Asp Glu Asp Val Lys Ala Arg
                                     145
                140
Lys Gln Glu Ile Ile Lys Val Thr Glu Gln Leu Ile Glu Ala Ile
                155
                                     160
Asn Asn Gly Asp Phe Glu Ala Tyr Thr Lys Ile Cys Asp Pro Gly
                                     L75
                170
Leu Thr Ala Phe Glu Pro Glu Ala Leu Gly Asn Leu Val Glu Gly
                185
                                     190
                                                          195
Met Asp Phe His Arg Phe Tyr Phe Glu Asn Ala Leu Ser Lys Ser
                200
                                     205
Asn Lys Pro Ile His Thr Ile Ile Leu Asn Pro His Val His Leu
                215
                                     220
Val Gly Asp Asp Ala Ala Cys Ile Ala Tyr Ile Arg Leu Thr Gln
                                     235
                230
Tyr Met Asp Gly Ser Gly Met Pro Lys Thr Met Gln Ser Glu Glu
                 245
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Thr Arg Val Trp His Arg Arg Asp Gly Lys Trp Gln Asn Val His
                260
                                     265
Phe His Arg Ser Gly Ser Pro Thr Val Pro Ile Asn
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Glu Thr Ala Ile Asn Ile Gly His Ser Cys Lys Leu Leu Lys Lys
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                 2.0
Asn Met Gly Met Ile Val Ile Asn Glu Gly Ser Leu Asp Ser Phe
                 35
                                      40
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Ser	Asn	Thr	Gln	Asn	Ser	Arg	Lys	Glu	Ala	Val	Leu	Leu	Ala	Lys
Met	Lys	His	Pro	50 Asn	Ile	Val	Ala	Phe	55 Lys	Glu	Ser	Phe	Glu	60 Ala
Glu	Gly	His	Leu	65 Tyr	Ile	Val	Met	Glu	70 Tyr	Cys	Asp	Gly	Gly	75 Asp
Leu	Met	Gln	Lys	80 Ile	Lys	Gln	Gln	Lys	85 Gly	Lys	Leu	Phe	Pro	90 Glu
Asp	Met	Ile	Leu	95 Asn	Trp	Phe	Thr	Gln	100 Met	Cys	Leu	Gly	Val	105 Asn
His	Ile	His	Lys		Arg	Val	Leu	His		Asp	Ile	Lys	Ser	
Asn	Ile	Phe	Leu	125 Thr	Gln	Asn	Gly	Lys		Lys	Leu	Gly	Asp	
Gly	Ser	Ala	Arg		Leu	Ser	Asn	Pro		Ala	Phe	Ala	Cys	150 Thr
Tyr	Val	Gly	Thr		Tyr	Tyr	Val	Pro		Glu	Ile	Trp	Glu	
Leu	Pro	Tyr	Asn		Lys	Ser	Asp	Ile	_	Ser	Leu	Gly	Суѕ	180 Ile
Leu	Tyr	Glu	Leu		Thr	Leu	Lys	His		Phe	Gln	Ala	Asn	
Trp	Lys	Asn	Leu		Leu	Lys	Val	Cys		Gly	Cys	Ile	Ser	
Leu	Pro	Ser	His		Ser	Tyr	Glu	Leu		Phe	Leu	'/al	Lys	
Met	Phe	Lys	Arg		Pro	Ser	His	Arg		Ser	Ala	Thr	Thr	
Leu	Ser	Arg	Gly	245 Ile 260	Val	Ala	Arg	Leu	250 Val 265	Gln	Lys	Cys	Leu	255 Pro 270
5:0	Glu	:1e	Ile		Glu	Туг	Gly	Glu		Val	Sau	Glu	Glu	Ile 285
űγs	Asr.	Ser	Lys		Asn	Thr	Pro	Arg		Lys	This	Asn	Pro	
Arg	Ile	Arg	Ile		Leu	Gly	Asn	Glu		Ser	Thr	Val	Gln	
Glu	Glu	Gln	Asp		Lys	Gly	Ser	His		αaƙ	Leu	Glu	Ser	Ile 330
Asn	Glu	Asn	Leu		Glu	Ser	Ala	Leu		Arg	Val	Asn	Arg	
Glu	Lys	Gly	Asn		Ser	Val	His	Leu		Lys	Ala	Ser	Ser	
Asn	Leu	His	Arg	Arg 365	Gln	Trp	Glu	Lys	Asn 370	Val	Pro	Asn	Thr	
Leu	Thr	Ala	Leu	Glu 380	Asn	Ala	Ser	Ile	Leu 385	Thr	Ser	Ser	Leu	Thr 390
Ala	Glu	Asp	Asp	Arg 395	Gly	Gly	Ser	Val	Ile 400	Lys	Tyr	Ser	Lys	Asn 405
Thr	Thr	Arg	Lys	Gln 410	Trp	Leu	Lys	Glu	Thr 415	Pro	Asp	Thr	Leu	Leu 420
Asn	Ile	Leu	Lys	Asn 425	Ala	Asp	Leu	Ser	Leu 430	Ala	Phe	Gln	Thr	Tyr 435
		_		440	Gly			_	445		_	_		450
Ser	Glu	Glu	Thr	Glu 455	Ala	Ser	Asp	Ser	Val 460	Asp	Gly	Gly	His	Asp 465
				470	Pro				475		_		_	480
	_		_	485	Glu			_	490			=	_	495
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This Pro Pro Val Val Ile Asn Ala Ala Asp Asp Asp Glu Asp	Arg	Ser	Val	Met	_	Val	Glu	Ser	Ser		Asn	Val	Pro	Ser	135 Pro
Asp Asp Asp Gln Phe Ser Glu Glu Gly Asp Glu Thr Lys Thr Pro Included I	Thr	His	Pro	Pro	Val	Val	Ile	Asn	Ala	Ala	Asp	Asp	Asp	Glu	150 Asp 165
The Leu Gln Pro Thr Pro Glu Val His Asn Gly Leu Arg Val To 185	Asp	Asp	Asp	Gln	Phe	Ser	Glu	Glu	Gly	Asp	Glu	Thr	Lys	Thr	Pro 180
Asn Phe Gly IIe Lys Thr Leu Glu Glu Glu Gly Ser Ser Gly Val Ser Lys Lys Glu Lys Crown Carlot Flow Ser Lys Lys Gln Gly Glu Gly Ser Ser Gly Val Ser Lys Glu Lys Crown Carlot Flow Ser Lys Lys Gln Gly Glu Gly Ser Ser Gly Val Ser Ser Leu Leu Leu His Pro Glu Pro Val Pro Gly Pro Gly Pro Glu Lys Gly Ser Ser Gly Val Ser Ser Leu Leu Leu His Pro Glu Pro Val Pro Gly Pro Gly Pro Glu Lys Gly Ser Ser Gly Val Ser Ser Leu Leu Leu His Pro Glu Arg Thr Val Thr Leu Ser Thr Lys Gly Gly Glu Glu Pro Leu Val Arg Thr Val Thr Leu Thr Glu Arg Leu Gly Gly Gly Asp Ser Asp Pro Pro Leu Leu Ser Leu Thr Gly Arg Leu Gly Arg Leu Gly Lys Lys Val Gly Glu Ala Pro Gly Asp Ser Asp Pro Pro Leu Leu Gly Arg Leu Gly Lys Lys Val Gly Glu Ala Pro Gly Ins Glu Arg Leu Gly Met Ser Ala Asp Pro Asp Asn Glu Asp Ser Leu Ins Glu Arg Leu Gly Met Ser Ala Asp Pro Asp Asn Glu Asp Ser Glu Glu Glu The His Val Lys John Ser Leu Gly Arg Ala Ser Gln Lys Arg Gly Glu The His Val Lys John Ser Leu Gly Arg Ala Ser Gln Lys Arg Gly Glu The His Val Lys John Ser Lys Mala Gly Fro Ser Lys Thr Asp Asp Ser Glu Glu Glu The Leu Leu Glu Arg Ala Ser Gln Lys Arg Gly Glu The Arg His Arg Gly Glu The Arg His Arg Gly Glu Arg Ala Ser Glu Glu Fro Ser Gly Ala Arg Ser Ser Ser Thr Glu Gly Pro Ser Lys Thr Asp Asp Ser Glu Glu The Arg His Leu Gly Arg Ala Ser Glu Glu The Arg His Lys Mala Gly Lys Thr Lys Ser Lys Lys His Arg Glo Gln Glu Arg Ala Ser Glu Glu Fro Pro Ile Val Arg Gly Glu Fro Fro Gly Ala Arg Ser Ser Ser Thr Glu Gly Fro Fro Ile Val Arg Gly Glu Fro Fro Gly Ala Arg Gly Glu Glu Fro Fro Ile Val Arg Gly Glu Glu Fro Fro Ile Val Arg Gly Glu Fro Fro Gly Ala Arg Arg Gly Glu Glu Fro Fro Ile Val Arg Gly Arg Gly Glu Fro Fro Gly Ala Arg Arg Leu Leu Arg Gly Asp Ser Glu Glu Fro Fro Fro Ser Glu Glu Fro Fro Ser Glu Glu Fro Fro Ser Glu Glu Fro Fro Leu Arg Gly Asp Ser Glu Glu Fro Fro Leu Arg Gly Asp Ser Glu Glu Fro Fro S	Thr	Leu	Gln	Pro	Thr	Pro	Glu	Val	His	Asn	Gly	Leu	Arg	Val	Thr 195
Lys Glu Lys Ser Lys Lys Gln Gly Glu Gly Ser Ser Gly Val S Ser Leu Leu His Pro Glu Pro Val Pro Gly Pro Glu Lys G 245 Asn Val Arg Thr Val Val Arg Thr Val Thr Leu Ser Thr Lys G 265 Lys Arg Lys Phe Ser Ala Gly Gly Asp Ser Asp Pro Pro Leu L 275 Lys Arg Lys Phe Ser Ala Gly Gly Lys Lys Val Glu Ala Pro G Arg Ser Leu Ala Gln Arg Leu Gly Lys Lys Val Glu Ala Pro G Asp Ser Leu Lys Thr Pro Lys Lys Ala Gln Val Ser Lys S 310 Leu Lys Glu Arg Leu Gly Met Ser Ala Asp Pro Asp Asn Glu A 335 Leu Lys Glu Glu Ile Leu Leu Glu Arg Ala Ser Gln Lys Arg Gly G Leu Glu Glu Ile Leu Leu Glu Arg Ala Ser Gln Lys Arg Gly G Arg Ser Leu Lys Lys Thr Glu Gly Ser Lys Thr Asp Ash Ser Glu Ala Arg Ser Leu Lys Gly Glu Ile Lys Thr Glu Gly Ser Lys Thr Asp Ash Gly Glu Ile Lys Thr Glu Gly Ser Lys Thr Asp Ash Gly Glu Ile His Val Lys Thr Glu Gly Ser Lys Thr Asp Ash Gly Glu Ile Lys Thr Glu Gly Ser Lys Thr Asp Ash Gly Glu Ile Lys Thr Glu Gly Ser Lys Thr Asp Ash Gly Glu Arg Ala Ser Gln Lys Arg Gly Glu Arg Ala Arg Ser Ser Thr Ile Arg Ile Lys Thr Asp Ash Glu Arg Ala Ser Gln Lys Arg Gly Glu Arg Glu Arg Ala Glu Glu Ile Lys Thr Glu Gly Ser Lys Thr Asp Ash Glu Arg Ala Ser Glu Val Leu Arg Ala Ser Glu Lys Thr Lys Glu Arg Gln Gln Glu Arg Gln Lys Arg Gly Glu Arg Glu Arg Glu Arg Gly Glu Fle Lys Lys Thr Lys Glu Arg Glu Glu Glu Ile Lys Lys Thr Lys Glu Arg Glu Glu Glu Ile Lys Leu Lys Thr Lys Glu Glu Glu Ile Lys Leu Lys Arg Gly Gln Ser Lys Thr Lys Glu Glu Glu Ile Lys Leu Glu Arg Ala Ser Glu Glu Glu Ile Lys Leu Glu Arg Ala Glu Glu Glu Ile Lys Leu Glu Glu Glu Ile Lys Glu Glu Lys Arg Cys Glu Thr Thr Gly Val Asp Ile Thr Lys Ile Glu Arg Glu Ala Ser Glu Glu Thr Thr Gly Val Asp Ile Thr Lys Ile Glu Ala Ser Glu Glu Thr Met Arg Glu Lys His Met Gln Glu Ala Ser Cys Asn Thr Glu Val Ala Glu Lys Fro Val Leu Thr A 550 Glu Ala Ser Cys Asn Thr Gln Val Ala Glu Lys Pro Val Leu Thr A 590 Val Pro Gly Ile Thr Arg His L	Ser	Val	Arg	Lys		Ala	Val	Asn	Ile		Gln	Gly	Glu	Cys	Leu 210
Ser Leu Leu Leu His Pro Glu Pro Val Pro Gly Pro Glu Lys Cannot Ser Leu Leu Leu His Pro Glu Pro Val Pro Gly Pro Glu Lys Cannot Ser Leu Leu Leu His Pro Gly Pro Gly Pro Glu Lys Cannot Ser James Val Arg Thr Val Val Arg Thr Val Thr Leu Ser Thr Lys Gly Gly Glu Glu Pro Leu Val Arg Leu Ser Leu Thr Glu Arg Leu Gly Lys Arg Lys Pro Pro Leu Law Gly Gly Asp Ser Asp Pro Pro Leu Cannot San James Val Glu Ala Pro Gly Ser Leu Ala Gln Arg Leu Gly Lys Lys Val Glu Ala Pro Gly Lys Glu Arg Leu Gly Met Ser Ala Asp Pro Asp Asn Glu Ala Pro Gly Glu Glu Glu Fro Leu Leu Gly Arg Ala Ser Gln Lys Arg Gly Glu Arg Leu Gly Arg Ala Ser Gln Lys Arg Gly Glu Glu Fro His Val Lys Glu Glu Gly Glu Glu Fro His Val Lys Glu Glu Gly Glu Glu Fro His Val Lys Glu Arg Ala Ser Gln Lys Arg Gly Glu Arg Ala Ser Gln Lys Arg Gly Glu Arg Glu Arg Ala Ser Gln Lys Arg Gly Glu Arg Glu Arg Glu Arg Glu Arg Glu Arg Glu Gly Glu Glu Fro His Val Lys Thr Glu Gly Pro Ser Lys Thr Asp Arg Gly Glu Arg Glu Arg Glu Arg Glu Arg Glu Cannot Glu Arg Glu Arg Glu Lys Gry Glu Glu Glu Fro Fro Ile Cannot Glu Arg Glu Arg Glu			_		215					220	_		_	_	225
Asn Val Arg Thr Val Val Arg Thr Val Thr Leu Ser Thr Lys G 265	Lys	Glu	Lys	Ser	_	Lys	Gln	Gly	Glu		Ser	Ser	Gly	Val	Ser 240
Gly Glu Glu Pro Leu Val Arg Leu Ser Leu Thr Glu Arg Leu Gly Say Arg Lys Phe Ser Ala Gly Gly Asp Ser Asp Pro Pro Leu Lys Glu Arg Leu Gly Lys Lys Val Glu Ala Pro Gly Asp Ser Asp Pro Pro Leu Lys Glu Lys Glu Arg Leu Gly Met Ser Ala Asp Pro Asp Asn Glu Ala Glu Arg Leu Gly Met Ser Ala Asp Pro Asp Asn Glu Ala Glu Thr Asn Tle Asp Lys 7al Asn Lys Val Gly Glu Tle His Val Lys Mala Glu Thr Met Asp Lys Thr Glu Gly Pro Ser Lys Thr Asp Asp Ser Asp Gly Asp Ser Asp Tro Asp Asn Glu Arg Ala Ser Glu Glu Tle Leu Leu Glu Arg Ala Ser Gln Lys Asp Gly Gly Glu Tle Leu Leu Glu Arg Ala Ser Gln Lys Asp Gly Gly Glu Tle Lys Thr Glu Gly Pro Ser Lys Thr Asp Asp Ser Thr Ser Gly Ala Arg Ser Ser Thr Ile Arg Ile Lys Thr Asp Asp Asp Glu Arg Ala Ser Glu Gly	Ser	Leu	Leu	Leu		Pro	Glu	Pro	Val		Gly	Pro	Glu	Lys	Glu 255
Lys Arg Lys Phe Ser Asp Pro Pro Leu Leu Gly Arg Ser Asp Pro Pro Leu Leu Gly Lys Lys Val Glu Ala Pro Gro Game Asp Pro Pro Leu Leu Gly Lys Lys Val Glu Ala Pro Gro Game Asp Pro Pro Leu Leu Gly Lys Lys Val Glu Ala Pro Gro Game Asp Lys Thr Pro Lys Lys Ala Gln Val Ser Lys Same Asp Pro Asp Asn Glu Ala Pro Gro Game Asp Lys Thr Pro Lys Lys Ala Gln Val Ser Lys Same Asp Pro Asp Asn Glu Ala Pro Gro Game Asp Pro Game Asp Pro Gro Ga	Asn	Val	Arg	Thr		Val	Arg	Thr	Val		Leu	Ser	Thr	Lys	Gln 270
Arg Ser Leu Ala Gln Arg Leu Gly Lys Lys Val Glu Ala Pro G 305 Thr Asn Ile Asp Lys Thr Pro Lys Lys Ala Gln Val Ser Lys S 320 Leu Lys Glu Arg Leu Gly Lys Lys Ala Gln Val Ser Lys S 325 Leu Lys Glu Arg Leu Gly Met Ser Ala Asp Pro Asp Asn Glu A 335 Leu Lys Glu Arg Leu Gly Met Ser Ala Asp Pro Asp Asn Glu A 335 Leu Glu Glu Ile Leu Glu Arg Ala Ser Gln Lys Arg Gly Glu Glu II His Val Lys M 365 Leu Gln Thr Lys Leu Leu Glu Arg Ala Ser Gln Lys Arg Gly Glu Glu Glu II His Val Lys M 380 Eer Thr Ser Gly Ala Arg Ser Ser Ser Thr II Arg II Lys Thr Asp Asp And Glu Arg Gln Arg Gln Lys Arg Gly Glu Arg Gln Lys Thr Asp Asp And Glu Arg Glu Arg Gln Glu Arg Gln Glu Arg Gln Glu Arg Gln Lys Arg Gln Glu Arg Gln Lys Thr Asp Asp And Arg Ser Lys Thr II Arg II Lys Thr Asp And Arg Gln Glu Glu Pro Ala Gly Lys Thr Lys Sh And Ser Arg Gly Gln Ser Glu Glu Pro Ala Gly Lys Thr Lys Sh Arg Gln Glu Arg Gln Glu Arg Gln Gln Gln Gln Gln Glu Arg Gln Gln Gln Gln Glu Arg Gln	Gly	Glu	Glu	Pro		Va1	Arg	Leu	Ser		Thr	Glu	Arg	Leu	Gly 285
Thr Asn Tle Asp Lys Thr Pro Lys Lys Ala Scr Lys S Ala Chu Lys Arg S Ala Chu Lys Ala Chu Lys S Ala Chu Lys Thr G Alu Chu Chu Lys Chu Lys Thr G Alu Chu Lys Chu Lys Thr G Alu Chu Ala Chu Lys S Ala Chu Lys Thr G Alu Chu Lys Alu Chu Lys Thr Chu Chu Lys Chu Alu Chu Chu Alu Chu Alu Chu Alu Chu Chu Chu Chu Chu Chu Chu Chu Chu Ch	-	_	-		290		-	_	-	295	-				300
See Leve Leve Glu Arg Leve Glu Arg A	Arg	Ser	Leu	Ala		Arg	Leu	Gly	Lys		Val	Glu	Ala	Pro	Glu 315
335	Thr	Asn	ïle	Asp	_	Thr	Pro	Lys	Lys		Gln	Val	Ser	Lys	Ser 330
Leu Glu Glu Ile Leu Leu Glu Arg Ala Ser Gln Lys Arg Gly Glo Glu Glu Ile Leu Leu Glu Arg Ala Ser Gln Lys Arg Gly Glo Glu Gln Thr Lys Leu Lys Thr Glu Gly Pro Ser Lys Thr Asp A 380	Seu	lys	Glu	Arg		Gly	Met	Ser	Ala	_	Pro	Asp	Asn	Glu	А.эр 345
365	Alā	Thr	Asp	ГЛS		Asn	Lys	Val	Gly		Ile	His	Val	Ľγз	Thr 360
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Ser Thr Ser Gly Ala Arg Ser Ser Ser Thr Ile Arg Ile Lys Th Arg Gln Cly Arg Gln Gln Gln Arg Gln Gln Arg Gln Arg Gln Lys Lys Lys Lys Lys His Arg Gln Gln Gln Arg Arg Ile Lys Lys Lys Thr Thr Thr Thr Cys Ile Lys Lys Arg Arg Arg Arg Ile Lys Lys Thr Val Val Leu Pro Pro Pro Arg	Leu	Gln	Thr	Lys		Lys	Thr	Glu	Gly		Ser	Lys	Thr	Asp	Asp 390
Secondary Seco	Ser	Thr	Ser	Gly		Arg	Ser	Ser	Ser		Ile	Arg	Ile	Lys	Thr 405
## Asp Ser Glu 11e Lys Lys Thr Val Val Leu Pro Pro 11e Val Val Leu Pro Ada Gly Lys Thr Lys Salue Leu Af5 Val His Ile Lys Thr Leu Glu Glu Ile Lys Leu Gly Lys Ala Leu Ar5	Phe	Ser	Glu	Val		Ala	Glu	Lys	Lys		Arg	Gln	Gln	Glu	Ala 420
Ala Ser Arg Gly Gln Ser Glu Glu Pro Ala Gly Lys Thr Lys Ser Atg Gly Gln Ser Glu Glu Pro Ala Gly Lys Thr Lys Ser Atg Glu Glu Val His Ile Lys Thr Leu Glu Glu Glu Ile Lys Leu Gly Lys Atg Lys Atg Leu Atg Atg Gln Gln Gln Ser Ser Glu Ser Ser Thr Ser Ser Atg Ser Gln His Glu Ala Thr Pro Gly Ala Arg Arg Leu Leu Atg Sob	Glu	Arg	Gln	Lys		Lys	Lys	Asp	Thr		Cys	Ile	Lys	Leu	Lys 435
Met Gln Glu Val His 470 Ile Lys Thr Leu Glu Glu Ile Lys Leu Glu Glu Ile Lys Leu Glu Glu Ile Lys Leu Glu Arg Leu Glu Arg Ile Lys Ser Ser Glu Ser	ïle	Asp	Ser	Glu		Lys	Lys	Thr	Val		Leu	Pro	Pro	Ile	Val 450
Met Glu Val His Ile Lys Thr Leu Glu Glu Ile Lys Leu Gu A Lys Ala Leu Arg Val Gln Gln Ser Ser Glu Ser Ser Thr Ser Ser<	Ala	Ser	Arg	Gly		Ser	Glu	Glu	Pro		Gly	Lys	Thr	Lys	Ser 465
485 485 490 470 485 485 485 490 420 4	Met	Gln	Glu	Val		Ile	Lys	Thr	Leu		Glu	Ile	Lys	Leu	
Pro Ser Gln His Glu Ala Thr Pro Gly Ala Arg Arg Leu Leu Ag Ile Thr Lys Arg Thr Gly Met Lys Glu Lys Asn Leu Gln Arg Thr Gln Arg Gln Arg Gln Arg Ile Arg Thr Gln Gln Arg Ile Arg Thr Gln Ile Arg Ile Thr Gln Ile Arg Ile	Ľys	Ala	Leu	Arg		Gln	Gln	Ser	Ser		Ser	Ser	Thr	Ser	
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Val Lys Arg Cys Glu Thr Met Arg Glu Lys Glu Lys Glu Lys Ser Val Leu Thr Pro Leu Arg Gly Asp V Gln Glu Arg Glu Lys Ser Val Leu Thr Pro Leu Arg Gly Asp V Ala Ser Cys Asn Thr Gln Val Ala Glu Lys Pro Val Leu Thr Arg Full Val Pro Gly Ile Thr Arg His Leu Thr Lys Arg Leu Pro Thr Leu	Glu	Ala	Ser	Gly	Glu	Thr	Thr	Gly	Val	Asp	Ile	Thr	Lys	Ile	
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Gln Lys Leu Leu Asp Ala Ser Lys Arg Ala Lys Asn Phe Val Ser
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Mrg Gly Prc Pro Glu Ser Arg Glu Trp Gly Asn Ala Leu Lys Gly
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Cys Asp Asp Pro Leu The Leu Asp Phe Leu Lys Gln Cys Leu Glu
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His Gln Lys Gln Val Glu Lys Ser Gln Asn Lys Ala Arg Gln Cys
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Lys Asp Ser Ala Thr Glu Ala Glu Arg Val Tyr Arg Gln Ser Ile
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Thr Thr Cys Glu Ala Phe Gln Leu Gln Glu Phe Asp Arg Leu Thr
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Phe Asp Ser Ala Trp Gln Glu Met Leu Asn His Ala Thr Gln Arg
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                                                          135
Val Met Glu Ala Glu Gln Thr Lys Thr Arg Ser Glu Leu Val His
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Gln Leu Glu Lys Lys Leu Lys Arg Ala Ile Asn Lys Ser Lys Pro
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Tyr Phe Glu Leu Lys Ala Lys Tyr Tyr Val Gln Leu Glu Gln Leu
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Lys Lys Thr Val Asp Asp Leu Gln Ala Lys Leu Thr Leu Ala Lys
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Gly Glu Tyr Lys Met Ala Leu Lys Asn Leu Glu Met Ile Ser Asp
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Glu Ile His Glu Arg Arg Ser Ser Ala Met Gly Pro Arg Gly
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Cys Gly Val Gly Ala Glu Gly Ser Ser Thr Ser Val Glu Asp Leu
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Pro Gly Ser Lys Pro Glu Pro Asp Ala Ile Ser Val Ala Ser Glu
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Ala Phe Glu Asp Asp Ser Cys Ser Asn Phe Val Ser Glu Asp Asp
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Pro Ser Glu Met Pro Asp Gln Phe Pro Ala Val Val Arg Pro Gly
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Met Phe Pro Val Leu Gly Pro Arg Ser Glu Cys Ser Gly Ala Ser
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Ser Pro Glu Cys Glu Val Glu Arg Gly Asp Arg Ala Glu Gly Ala
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Glu Asn Lys Thr Ser Asp Lys Ala Asn Asn Asn Gly Leu Ser
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Ser Ser Ser Gly Ser Gly Ser Ser Lys Ser Gln Ser Ser Thr
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Ser Pro Glu Gly Gln Ala Leu Glu Asn Arg Met Lys Gln Leu Ser
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Lys Thr Gly Gln Leu Ala Ala Ile Lys Val Met Asp Val Thr Glu
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Tyr Ser His His Arg Asn Ite Ala Thr Tyr Tyr Gly Ala Phe Ite 80					65					70					75
105 106 107 108 110 115 120	Tyr	Ser	His	His		Asn	Ile	Ala	Thr		Tyr	Gly	Ala	Phe	
Lys Gly Asn The Leu Lys Glu Asp Trp 11e Ala Tyr 11e Ser Arg 130	Lys	Lys	Ser	Pro		Gly	His	Asp	Asp		Leu	Trp	Leu	Val	
125	Glu	Phe	Cys	Gly		Gly	Ser	Ile	Thr	_	Leu	Val	Lys	Asn	
His Arg Asp Ile Lys Gly Gln Asn Val Leu Leu Ten Glu Asn Ala 165 Gly Val Lys Leu Val Asp Phe Gly Val Ser Ala Gln Leu Asp Arg 170 Thr Val Gly Arg Arg Asn Thr Phe Ile Gly Thr Pro Tyr Trp Met 185 Ala Pro Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Arg 195 Ala Pro Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Ala Thr Tyr 200 Asp Tyr Arg Ser Asp Leu Trp Ser Cys Gly Ile Thr Ala Ile Glu 215 Met Ala Glu Gly Ala Pro Pro Leu Cys Asp Met His Pro Met Arg 230 Ala Leu Phe Leu Ile Pro Arg Asn Pro Pro Pro Pro Arg Ash Pro 250 Lys Lys Trp Ser Lys Lys Phe Phe Ser Phe Ile Glu Gly Cys Leu 245 Ala Leu Phe Leu Ile Pro Arg Asn Pro Pro Pro Pro Arg Ash Tyr Arg Lys Lys Phe Phe Ser Phe Ile Glu Gly Cys Leu 295 Als Pro Phe Ile Arg Asp Gln Arg Pro Ser Thr Glu Glu Cys Asp Met Ala Glu Gly Cys Leu 245 Lys Asn Tyr Met Gln Arg Pro Ser Phe Ile Glu Gly Cys Leu 285 Als Pro Phe Ile Arg Asp Gln Pro Ash Glu Arg Gln Val Arg Ile 285 Als Pro Phe Ile Arg Asp Gln Tyr Ser Gly Ser Glu	Lys	Gly	Asn	Thr		Lys	Glu	Asp	Trp		Ala	Tyr	Ile	Ser	
155	Glu	Ile	Leu	Arg	_	Leu	Ala	His	Leu		Ile	His	His	Val	
The Val Gly Arg Arg Asn Thr Phe IIe Gly Thr Po Tyr Trp Met 185	His	Arg	Asp	Ile	_	Gly	Gln	Asn	Val		Leu	Thr	Glu	Asn	
Ala Pro Glu Val Ile Ala Cys Asp Glu Asn Pro Asp Ala Thr Tyr 200	Gly	Val	Lys	Leu		Asp	Phe	Gly	Val		Ala	Gln	Leu	Asp	_
Asp Tyr Arg Ser Asp Leu Trp Ser Cys Gly Ile Thr Ala Ile Glu 215 220 220 225 220 225 226 225 226	Thr	Val	Gly	Arg	_	Asn	Thr	Phe	Ile	_	Thr	Pro	Tyr	Trp	
Met Ala Glu Gly Ala Pro Pro Leu Cys Asp Met His Pro Met Arg 230 240 Ala Leu Pro Pro Pro Pro Pro Pro Arg Asp Met His Pro Leu Lys 245 240 245 245 245 255 265 255 265 <td>Ala</td> <td>Pro</td> <td>Glu</td> <td>Val</td> <td></td> <td>Ala</td> <td>Cys</td> <td>Asp</td> <td>Glu</td> <td></td> <td>Pro</td> <td>Asp</td> <td>Ala</td> <td>Thr</td> <td>-</td>	Ala	Pro	Glu	Val		Ala	Cys	Asp	Glu		Pro	Asp	Ala	Thr	-
Ala Leu Phe Leu Ile Pro Arg Asn Pro Pro Pro Arg Leu Lys Ser 245 Lys Lys Trp Ser Lys Lys Phe Phe Ser Phe 11e Glu Gly Cys Leu Lys Ser 255 Lys Lys Asn Tyr Met Gln Arg Pro Ser Thr Glu Gln Leu Leu Lys 275 Wal Lys Asn Tyr Met Gln Arg Pro Ser Thr Glu Gln Leu Leu Lys 275 His Pro Phe Ile Arg Asp Gln Pro Asn Glu 295 Gln Leu Lys Asp His 11e Asp Arg Thr Arg Lys Lys Arg Gly Glu 305 Lys Asp Glu Thr Glu Tyr Glu Tyr Ser Gly Ser Glu Glu Glu Glu Glu Glu 315 Lys Asp Glu Val Pro Glu Gln Glu Gly Glu Pro Ser Ser Ile Val Asn 335 Glu Glu Val Pro Glu Gln Glu Gly Glu Pro Ser Ser Ile Val Asn 340 Gln Glu Asn Lys Glu Arg Ser Glu Ala Leu Arg Arg Arg Arg Gln Glu Leu Arg Gln Glu Glu 365 Gln Glu Glu Gln Gln Leu Arg Glu Glu Glu Glu Glu 365 Gln Glu Asn Lys Glu Arg Ser Glu Ala Leu Arg Arg Arg Gln Gln Leu 365 Leu Gln Glu Gln Gln Leu Arg Glu Gln Gln Gln Leu 395 Leu Leu Ala Glu Arg Glu Gln Gln Gln Gln Leu 400 Arg Arg Arg Leu Glu Glu Gln Gln Arg Arg Arg Glu Gln Gln Lys Glu Gln Gln Gln Arg Arg Arg Glu Gln Gln Gln Lys Glu Gln Gln Gln Leu Glu Glu Glu Glu Glu Glu Glu Glu Glu Gl	Asp	Туr	Arg	Ser		Leu	Trp	Ser	Cys		Ile	Thr	Ala	Ile	
Lys Lys Trp Ser Lys Lys Lys Phe Phe Ser Phe	Met	Ala	Glu	Gly		Pro	Pro	Leu	Cys	_	Met	His	Pro	Met	_
Val Lys	Ala	Leu	Phe	Leu		Pro	Arg	Asn	Pro		Pro	Arg	Leu	Lys	
## Second Process of the First	Lys	Lys	Trp	Ser	_	Lys	₽he	Phe	Ser		Ile	Glu	Gly	Суѕ	
Sign	Val	Lys	Asn	Tyr		Gln	Arg	Pro	Ser		Glu	Gln	Leu	Leu	-
The Glu	His	Pro	Phe	Ile	_	Asp	Gln	Pro	Asn		Arg	Gln	Val	Arg	
Signature Sign	Gln	Leu	Lys	Asp		Ile	Asp	Arg	Thr		Lys	Lys	Arg	Gly	
Val 2ro Gly Glu Ser Thr Leu Arg Arg Asp Phe Leu Arg Leu Gln 355 365 365 365 365 365 365 365 370 375 375 Leu Arg Glu Arg Arg Glu Glu Glu Tyr Lys Arg Glu Arg A	Туs	Asp	Glu	Thr		Tyr	Glu	Tyr	Ser		Ser	Glu	Glu	Glu	
Signature Sign	Glu	Glu	Val	Pro		Gln	Glu	Gly	Glu		Ser	Ser	Ile	Val	
Secondary Seco	Val	Pro	Gly	Glu		Thr	Leu	Arg	Arg	-	Phe	Leu	Arg	Leu	
Leu Leu Ala Glu Arg Gln Lys Arg Ile Glu Gln Gln Lys Glu Gln Avo	Gln	Glu	Asn	Lys		Arg	Ser	Glu	Ala		Arg	Arg	Gln	Gln	
Arg Arg Arg Leu Glu Glu Gln Gln Arg Arg Arg Leu Glu Gln Gln Arg Arg Arg Glu Arg Glu Arg Glu Ala Arg Arg Arg Gln	Leu	Gln	Glu	Gln		Leu	Arg	Glu	Gln		Glu	Tyr	Lys	Arg	
Arg Gln Lys 435 Arg Arg Arg Leu Glu Glu Glu Glu Arg Arg Arg Lys Glu Glu Glu Glu 445 450 450 450 450 450 450 460 460 450 460 460 460 465 460 465 465 465 465 465 465 465 465 465 465 465 465 465 460 475 480 480 470 475 480 480 480 480 485 470 475 480 480 485 485 485 490 4					395		_			400			-		405
Arg Arg Leu Glu Glu Leu Glu Arg Arg Arg Lys Glu Glu Glu Glu Glu Glu Glu Arg Arg Arg Lys Glu Glu Glu Glu Arg Arg Arg Glu Glu Glu Glu Glu Glu Glu Glu Arg His Glu Glu Glu Glu Glu Arg His Leu Glu Glu Glu Glu Arg His Leu Glu Glu Glu Arg His Arg His Arg Fro Glu Glu Glu Glu Arg His Arg Arg Arg Arg Fro Glu His Ser Glu His Arg Fro Glu His Ser Glu His Arg Fro Fro Fro Ser Phe His Ala Pro Fro F	Arg	Arg	Arg	Leu		Glu	Gln	Gln	Arg		Glu	Arg	Glu	Ala	
Arg Arg Ala Glu Glu Glu Lys Arg Arg Val Glu Arg Glu Glu Glu Glu Glu Glu Glu Glu Arg Glu Glu Glu Glu Glu Arg His Leu Glu Glu Glu Glu Arg His Leu Glu Glu Glu Arg His Leu Glu Glu Glu Arg His Arg His Arg Arg His Pro Glu His Ser Glu His Arg Fro Pro Glu His Arg Fro Pro Fro F	Arg	Gln	Gln	Glu		Glu	Gln	Arg	Arg		Glu	Gln	Glu	Glu	
A55	Arg	Arg	Leu	Glu		Leu	Glu	Arg	Arg		Lys	Glu	Glu	Glu	
Val Leu Gln Gln Leu Leu Leu Gln Gln Ala Met Leu Leu His 490 Leu Leu His 495 Asp His Arg Pro His Pro Gln His Ser Gln Gln Pro Pro Pro Pro 510 Pro Pro Ser Pro His Ala Pro Glu Pro Pro Ser Pro His Ala Pro Glu Pro Ser Pro Ser Pro His Ala Arg Glu Pro Ser Ser Pro Ser Pro Ser In In<	Arg	Arg	Arg	Ala		Glu	Glu	Lys	Arg		Val	Glu	Arg	Glu	
Asp His Arg Pro His Pro Gln His Ser Gln Gln Pro Pro Pro Pro Ser Gln Gln Gln Pro Pro Ser Pro Ser Pro Ser Pro His Ala Pro Glu Pro Ser Pro Ser Pro Ser Pro Ser Ala Arg Glu Val Pro Val Arg Arg Arg Arg Pro Ser Arg Arg Arg Arg Arg Pro Ser Pro Val Leu Ser Arg Arg Arg Pro Ser Pro Ser Arg A	Glu	Tyr	Ile	Arg	_	Gln	Leu	Glu	Glu		Gln	Arg	His	Leu	
Pro Gln Gln Gln Glu Arg Ser Lys Pro Ser Phe His Ala Pro Glu Pro 525 Lys Ala His Tyr Glu Pro Ala Asp Arg Ala Arg Glu Val Pro Val 530 Arg Thr Thr Ser Arg Ser Pro Val Leu Ser Arg Arg Asp Ser Pro 555 Leu Gln Gly Ser Gly Gln Gln Asn Ser Gln Ala Gly Gln Arg Asn	Val	Leu	Gln	Gln		Leu	Leu	Gln	Glu		Ala	Met	Leu	Leu	
Lys Ala His Tyr Glu Pro Ala Asp Arg Ala Arg Glu Val Pro Val 530 Arg Thr Thr Ser Arg Ser Pro Val Leu Ser Arg Arg Asp Ser Pro 545 Leu Gln Gly Ser Gly Gln Gln Asn Ser Gln Ala Gly Gln Arg Asn	Asp	His	Arg	Arg		His	Pro	Gln	His		Gln	Gln	Pro	Pro	
Lys Ala His Tyr Glu Pro Ala Asp Arg Ala Arg Glu Val Pro Val 530	Pro	Gln	Gln	Glu		Ser	Lys	Pro	Ser	Phe	His	Ala	Pro	Glu	Pro
545 550 555 Leu Gln Gly Ser Gly Gln Gln Asn Ser Gln Ala Gly Gln Arg Asn	Lys	Ala	His	Tyr		Pro	Ala	Asp	Arg		Arg	Glu	Val	Pro	
	Arg	Thr	Thr	Ser	_	Ser	Pro	Val	Leu		Arg	Arg	Asp	Ser	
	Leu	Gln	Gly	Ser		Gln	Gln	Asn	Ser		Ala	Gly	Gln	Arg	

Ser Thr Ser Ile Glu Pro Arg Leu Trp Glu Arg Val Glu Lys Leu Val Pro Arg Pro Gly Ser Gly Ser Ser Gly Ser Ser Asn Ser Gly Ser Gln Pro Gly Ser His Pro Gly Ser Gln Ser Gly Ser Gly Glu Arg Phe Arg Val Arg Ser Ser Ser Lys Ser Glu Gly Ser Pro Ser Gln Arg Leu Glu Asn Ala Val Lys Lys Pro Glu Asp Lys Lys Glu Val Phe Arg Pro Leu Lys Pro Ala Asp Leu Thr Ala Leu Ala Lys Glu Leu Arg Ala Val Glu Asp Val Arg Pro Pro His Lys Val Thr Asp Tyr Ser Ser Ser Glu Glu Ser Gly Thr Thr Asp Glu Glu Asp Asp Asp Val Glu Glu Gly Ala Asp Glu Ser Thr Ser Gly Pro Glu Asp Thr Arg Ala Ala Ser Ser Leu Asn Leu Ser Asn Gly Glu Thr Glu Ser Val Lys Thr Met Ile Val His Asp Asp Val Glu Ser Glu Pro Ala Met Thr Pro Ser Lys Glu Gly Thr Leu The Val Arg Gln Thr Gln Ser Ala Ser Ser Thr Leu Gln Lys His Lys Ser Ser Ser Phe Thr Pro Phe Ile Asp Pro Arg Leu Leu Gln Ile Ser Pro Ser Ser Gly Thr Thr Val Thr Ser Val Val Gly The Ser Cys Asp Gly Met Arg Pro Glu Ala Ile Arg Gln Asp Pro Thr Arg Lys Gly Ser Val Val Asn Val Asn Pro Thr Asn Thr Arg Pro Gln Ser Asp Thr Pro Glu Ile Arg Lys Tyr Lys Lys Arg Phe Asn Ser Glu Ile Leu Cys Ala Ala Leu Trp Gly Val Asn Leu Leu Val Gly Thr Glu Ser Gly Leu Met Leu Leu Asp Arg Ser Gly Gln Gly Lys Val Tyr Pro Leu Ile Asn Arg Arg Arg Phe Gln Gln Met Asp Val Leu Glu Gly Leu Asn Val Leu Val Thr Ile Ser Gly Lys Lys Asp Lys Leu Arg Val Tyr Tyr Leu Ser Trp Leu Arg Asn Lys Ile Leu His Asn Asp Pro Glu Val Glu Lys Lys Gln Gly Trp Thr Thr Val Gly Asp Leu Glu Gly Cys Val His Tyr Lys Val Val Lys Tyr Glu Arg Ile Lys Phe Leu Val Ile Ala Leu Lys Ser Ser Val Glu Val Tyr Ala Trp Ala Pro Lys Pro Tyr His Lys Phe Met Ala Phe Lys Ser Phe Gly Glu Leu Val His Gly Ser Cys Ala Gly Phe His Ala Val Asp Val Asp Ser Gly Ser Val Tyr Asp Ile Tyr Leu Pro Thr His Ile Gln Cys Ser Ile Lys Pro His Ala Ile Ile Ile Leu Pro Asn Thr Asp Gly Met Glu Leu Leu Val Cys Tyr Glu Asp Glu Gly Val Tyr Val Asn Thr Tyr Gly Arg Ile Thr Lys Asp Val Val Leu Gln Trp Gly Glu Met Pro Thr Ser Val Ala Tyr Ile Arg Ser Asn Gln Thr Met Gly Trp Gly Glu Lys Ala Ile Glu Ile Arg

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Ser Val Glu Thr Gly His Leu Asp Gly Val Phe Met His Lys Arg
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                                   1105
                                                        1110
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Arg Arg Lys Glu Trp Val Arg Leu Val Arg Arg Lys Asn Phe Val
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Pro Gly Lys His Thr Phe Leu Cys Ser Lys His Phe Glu Ala Ser
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Cys Phe Asp Leu Thr Glv Gln Thr Arg Arg Leu Lys Met Asp Ala
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                                      70
Val Pro Thr Ile Phe Asp Phe Cys Thr His Ile Lys Ser Met Lys
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Leu Lys Ber Arg Asn Leu Leu Tys Lys Asn Asn Ser Cys Ser Pro
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                                     100
Ala Cly Pro Ser Asn Leu Lys Ser Asn Ile Ser Ser Gln Gln Val
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Leu Leu Glu His Ser Tyr Ala Phe Arg Asn Pro Met Glu Ala Lys
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Lys Arg Ile Ile Lys Leu Glu Lys Glu Ile Ala Ser Leu Arg Arg
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                                     145
Lys Met Lys Thr Cys Leu Gln Lys Glu Arg Arg Ala Thr Arg Arg
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Trp Ile Lys Ala Thr Cys Leu Val Lys Asn Leu Glu Ala Asn Ser
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                                     175
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Val Leu Pro Lys Gly Thr Ser Glu His Met Leu Pro Thr Ala Leu
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                                     190
Ser Ser Leu Pro Leu Glu Asp Phe Lys Ile Leu Glu Gln Asp Gln
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Cys	Val	Lys	Leu	Cys 35	Thr	Gly	His	Glu	Tyr 40	Ala	Ala	Lys	Ile	Ile 45
Asn	Thr	Lys	Lys	Leu 50	Ser	Ala	Arg	Asp	His 55	Gln	Lys	Leu	Glu	Arg 60
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				80			Glu		85					90
				95			Leu		100					105
	_			110			Ala		115					120
				125		_	His		130					135
				140			Leu		145					150
				155			Phe		160					165
				170			Gly		175					180
				185		_	Lys		190	_	_			195
				200			Ile		205					210
				215			Asp		220					225
	_			230	_	_	Phe		235			_	_	240
				245	-		Leu		250					255
				260			Ala		2€5					370
				275			Val		280					285
				390			Lys		295					300
_	_			305			Met		310					315
		-		320			Lys	_	325	_	_		_	330
				335	_		Ser		340					345
_				350			Leu		355		_			360
				365			Ala		370					375
				380			Ile		385					390
				395			Cys		400					405
				410			Leu		415					420
_		-		425			Leu		430					435
His	Thr	Thr	Ile	Leu 440	Asn	Pro	His	Val	His 445	Val	Ile	Gly	Glu	Asp 450
Ala	Ala	Суѕ	Ile	Ala 455	Tyr	Ile	Arg	Leu	Thr 460	Gln	Tyr	Ile	Asp	Gly 465
Gln	Gly	Arg	Pro	Arg 470	Thr	Ser	Gln	Ser	Glu 475	Glu	Thr	Arg	Val	Trp 480
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Gly	Ala	Pro	Val	Ala 500	Pro	Leu	Gln							

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Trp Gly Leu Trp Ser Ile Leu Gln Ala Ser Met Ser Thr Ile Glu

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Gln Gln Lys Gly Gln Leu Thr Ser Val His Ser Ser Ser

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Ala Leu Ala His Pro Tyr Leu Asp Glu Gly Arg Leu Arg Tyr His

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PF-0565 USN
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Thr Cys Met Cys Lys Cys Phe Ser Thr Ser Thr Gly Arg Val
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Tyr Thr Ser Asp Phe Glu Pro Val Thr Asn Pro Lys Phe Asp Asp
                455
                                     460
Thr Phe Glu Lys Asn Leu Ser Ser Val Arg Gln Val Lys Glu Ile
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Ile His Gln Phe Ile Leu Glu Gln Lys Gly Asn Arg Val Pro
                485
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Ala Ser Pro Phe Met Gln Lys Leu Gly Phe Gly Thr Gly Val Asn
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Val Tyr Leu Met Lys Arg Ser Pro Arg Gly Leu Ser His Ser Pro
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Trp Ala Val Lys Lys Ile Asn Pro Ile Cys Asn Asp His Tyr Arg
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                 65
                                      70
Ser Val Tyr Gln Lys Arg Leu Met Asp Glu Ala Lys Ile Leu Lys
                 80
                                      85
Ser Leu His His Pro Asn Ile Val Gly Tyr Arg Ala Phe Thr Glu
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                                     100
Ala Asn Asp Gly Ser Leu Cys Leu Ala Met Glu Tyr Gly Glu
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Lys Ser Leu Asn Asp Leu Ile Glu Glu Arg Tyr Lys Ala Ser Gln
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Asp Pro Phe Pro Ala Ala Ile Ile Leu Lys Val Ala Leu Asn Met
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Ala Arg Gly Leu Lys Tyr Leu His Gln Glu Lys Lys Leu Leu His Gly Asp Ile Lys Ser Ser Asn Val Val Ile Lys Gly Asp Phe Glu Thr Ile Lys Ile Cys Asp Val Gly Val Ser Leu Pro Leu Asp Glu Asn Met Thr Val Thr Asp Pro Glu Ala Cys Tyr Ile Gly Thr Glu Pro Trp Lys Pro Lys Glu Ala Val Glu Glu Asn Gly Val Ile Thr Asp Lys Ala Asp Ile Phe Ala Phe Gly Leu Thr Leu Trp Glu Met Met Thr Leu Ser Ile Pro His Ile Asn Leu Ser Asn Asp Asp Asp Asp Glu Asp Lys Thr Phe Asp Glu Ser Asp Phe Asp Asp Glu Ala Tyr Tyr Ala Ala Leu Gly Thr Arg Pro Pro Ile Asn Met Glu Glu Leu Asp Glu Ser Tyr Gln Lys Val Ile Glu Leu Phe Ser Val Cys Thr Asn Glu Asp Pro Lys Asp Arg Pro Ser Ala Ala His Ile Val

Glu Ala Leu Glu Thr Asp Val <210> 22 <211> 802 <212> PRT <213> Homo sapiens < 220> <221> misc_feature <223> Incyte ID No: 2764911 <400> 22 Met Glu Glu Gly Gly Ser Ser Gly Gly Ala Ala Gly Thr Ser Ala Asp Gly Gly Asp Gly Glu Gln Leu Leu Thr Val Lys His Glu Leu Arg Thr Ala Asn Leu Thr Gly His Ala Glu Lys Val Gly Ile Glu Asn Phe Glu Leu Leu Lys Val Leu Gly Thr Gly Aia Tyr Gly Lys Val Phe Leu Val Arg Lys Ile Ser Gly His Asp Thr Gly Lys Leu Tyr Ala Met Lys Val Leu Lys Lys Ala Thr Ile Val Gln Lys Ala Lys Thr Thr Glu His Thr Arg Thr Glu Arg Gln Val Leu Glu His Ile Arg Gln Ser Pro Phe Leu Val Thr Leu His Tyr Ala Phe Gln Thr Glu Thr Lys Leu His Leu Ile Leu Asp Tyr Ile Asn Gly Gly Glu Leu Phe Thr His Leu Ser Gln Arg Glu Arg The Thr Glu His Glu Val Gln Ile Tyr Val Gly Glu Ile Val Leu Ala Leu Glu His Lou His Lys Leu Gly Ile Ile Tyr Arg Asp Ile Lys Leu Glu Asn Ile Leu Leu Asp Ser Asn Gly His Val Val Leu Thr Asp Phe Gly Leu Ser Lys Glu Phe Val Ala Asp Glu Thr Glu Arg Ala Tyr Ser Phe Cys Gly Thr Ile Glu Tyr Met Ala Pro Asp Ile Val Arg Gly Gly Asp Ser Gly His Asp Lys Ala Val Asp Trp Trp Ser Leu Gly Val Leu Met Tyr Glu Leu Leu Thr Gly Ala Ser Pro Phe Thr Val Asp Gly Glu Lys Asn Ser Gln Ala Glu Ile Ser Arg Arg Ile Leu Lys Ser Glu Pro Pro Tyr Pro Gln Glu Met Ser Ala Leu 2.85 Ala Lys Asp Leu Ile Gln Arg Leu Leu Met Lys Asp Pro Lys Lys Arg Leu Gly Cys Gly Pro Arg Asp Ala Asp Glu Ile Lys Glu His Leu Phe Phe Gln Lys Ile Asn Trp Asp Asp Leu Ala Ala Lys Lys Val Pro Ala Pro Phe Lys Pro Val Ile Arg Asp Glu Leu Asp Val Ser Asn Phe Ala Glu Glu Phe Thr Glu Met Asp Pro Thr Tyr Ser Pro Ala Ala Leu Pro Gln Ser Ser Glu Lys Leu Phe Gln Gly Tyr Ser Phe Val Ala Pro Ser Ile Leu Phe Lys Arg Asn Ala Ala Val

Ile Asp Pro Leu Gln Phe His Met Gly Val Glu Arg Pro Gly Val

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Thr Asn Val Ala Arg Ser Ala Met Met Lys Asp Ser Pro Phe Tyr
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Gln His Tyr Asp Leu Asp Leu Lys Asp Lys Pro Leu Gly Glu Gly
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Ser Phe Ser Ile Cys Arg Lys Cys Val His Lys Lys Ser Asn Gln
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Ala Phe Ala Val Lys Ile Ile Ser Lys Arg Met Glu Ala Asn Thr
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Gln Lys Glu Ile Thr Ala Leu Glu Leu Cys Glu Gly His Pro Asn
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Ile Val Lys Leu His Glu Val Phe His Asp Gln Leu His Thr Phe
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Lys Lys Lys His Phe Ser Glu Thr Glu Ala Ser Tyr Ile Met
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Arg Lys Leu Val Ser Ala Val Ser His Met His Asp Val Gly Val
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Val His Arg Asp Leu Lys Pro Glu Asn Leu Leu Phe Thr Asp Glu
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Leu His Tyr Ala Ala Pro Glu Leu Leu Asn Gln Asn Gly Tyr Asp
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Glu Ser Cys Asp Leu Trp Ser Leu Gly Val Ile Leu Tyr Thr Met
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Leu Ser Gly Gln Val Pro Phe Gln Ser His Asp Arg Ser Leu Thr
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She Ser Phe Glu Gly Glu Ala Trp Lys Asn Val Ser Gln Glu Ala
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Lys Asp Leu Ile Gln Gly Leu Leu Thr Val Asp Pro Asn Lys Arg
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Ser Gln Leu Ser Ser Asn Pro Leu Met Thr Pro Asp Ile Leu Gly
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Asp Lys Ala Pro Leu Ala Lys Arg Lys Met Lys Lys Thr Ser
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Thr Ser Thr Glu Thr Arg Ser Ser Ser Ser Glu Ser Ser His Ser
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<210> 23

<211> 641

<212> PRT

<213> Homo sapiens

<220>

<221> misc feature

<223> Incyte ID No: 3013946

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Cys	Val	Lys	Leu	Cys 35	Thr	Gly	His	Glu	Tyr 40	Ala	Ala	Lys	Ile	Ile 45
Asn	Thr	Lys	Lys	Leu 50	Ser	Ala	Arg	Asp	His 55	Gln	Lys	Leu	Glu	Arg 60
Glu	Ala	Arg	Ile	Cys 65	Arg	Leu	Leu	Lys	His 70	Ser	Asn	Ile	Val	Arg 75
Leu	His	Asp	Ser	Ile 80	Ser	Glu	Glu	Gly	Phe 85	His	Tyr	Leu	Val	Phe 90
Asp	Leu	Val	Thr	Gly 95	Gly	Glu	Leu	Phe	Glu 100	Asp	Ile	Val	Ala	Arg 105
Glu	Tyr	Tyr	Ser	Glu 110	Ala	Asp	Ala	Ser	His 115	Cys	Ile	Gln	Gln	Ile 120
Leu	Glu	Ala	Val	Leu 125	His	Cys	His	Gln	Met 130	Gly	Val	Val	His	
Asp	Leu	Lys	Pro		Asn	Leu	Leu	Leu		Ser	Lys	Cys	Lys	
Ala	Ala	Val	Lys	Leu 155	Ala	Asp	Phe	Gly		Ala	Ile	Glu	Val	
Gly	Asp	Gln	Gln	Ala 170	Trp	Phe	Gly	Phe		Gly	Thr	Pro	Gly	
Ľеu	Ser	Pro	Glu	Val 185	Leu	Arg	Lys	Glu	Ala 190	Tyr	Gly	Lys	Pro	
Asp	Ile	Trp	Ala	Cys 200	Gly	Val	Ile	Leu	Tyr 205	Ile	Leu	Leu	Val	Gly 210
Tyr	Pro	Pro	Phe	Trp 215	Asp	Glu	Asp	Gln	His 220	Lys	Leu	Туr	Gln	Gln 225
Ile	Ξуз	Äla	Gly	Ala 230	Tyr	Asp	Phe	Pro	Ser 235	Pro	Glu	тrp	Asp	Thr 240
√al	Thr	Pro	Glu	Ala 245	Lys	Asn	Leu	Ile	Asn 250	Gln	Met	Leu	Thr	Tle 255
Asn	Pro	Ala	Lys	Arg 260	Ile	Thr	Ala	His	Glu 265	Ala	Leu	Lys	His	Pro 270
Trp	Val	Cys	Gln	Arg 275	Ser	Thr	Val	Alā	Ser 280	Met	Met	His	Arg	Gln 285
Glu	Thr	Val	Glu	Cys 290	Leu	Lys	l∙ys	Phe	Asn 295	Ala	Arg	Arg	Lys	Leu 300
Lys	Gly	Ala	Ile	Leu 305	Thr	Thr	Met	Leu	Ala 310	Thr	Arg	Asn	⊋he	Ser 315
Ala	Lys	Ser	Leu	Leu 320	Asn	Lys	Lys	Ala	Asp 325	Gly	Val	Lys	Pro	Gln 330
Thr	Asn	Ser	Thr	Lys 335	Asn	Ser	Ala	Ala	Ala 340	Thr	Ser	Pro	Lys	Gly 345
Thr	Leu	Pro	Pro	Ala 350	Ala	Leu	Glu	Pro	Gln 355	Thr	Thr	Val	Ile	His 360
Asn	Pro	Val	Asp	Gly 365	Ile	Lys	Glu	Ser	Ser 370	Asp	Ser	Ala	Asn	Thr 375
Thr	Ile	Glu	Asp	Glu 380	Asp	Ala	Lys	Ala	Pro 385	Arg	Val	Pro	Asp	Ile 390
Leu	Ser	Ser	Val	Arg 395	Arg	Gly	Ser	Gly	Ala 400	Pro	Glu	Ala	Glu	Gly 405
	Leu			410					415	_				420
Pro	Ser	Pro	Arg	Ile 425	Ser	Asp	Ile	Leu	Asn 430	Ser	Val	Arg	Arg	Gly 435
Ser	Gly	Thr	Pro	Glu 440	Ala	Glu	Gly	Pro	Leu 445	Ser	Ala	Gly	Pro	Pro 450
Pro	Cys	Leu	Ser	Pro 455	Ala	Leu	Leu	Gly	Pro 460	Leu	Ser	Ser	Pro	Ser 465
Pro	Arg	Ile	Ser	Asp 470	Ile	Leu	Asn	Ser	Val 475	Arg	Arg	Gly	Ser	Gly 480
	Pro			485	_				490	_				495
Pro	Ser	Pro	Thr	Ile 500	Pro	Gly	Pro	Leu	Pro 505	Thr	Pro	Ser	Arg	Lys 510

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Gln Glu Ile Ile Lys Thr Thr Glu Gln Leu Ile Glu Ala Val Asn
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Asn Gly Asp Phe Glu Ala Tyr Ala Lys Ile Cys Asp Pro Gly Leu
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                                    535
Thr Ser Phe Glu Pro Glu Ala Leu Gly Asn Leu Val Glu Gly Met
                545
                                    550
Asp Phe His Arg Phe Tyr Phe Glu Asn Leu Leu Ala Lys Asn Ser
                560
                                    565
                                                        570
Lys Pro Ile His Thr Thr Ile Leu Asn Pro His Val His Val Ile
                575
                                    580
                                                        585
Gly Glu Asp Ala Ala Cys Ile Ala Tyr Ile Arg Leu Thr Gln Tyr
                590
                                    595
Ile Asp Gly Gln Gly Arg Pro Arg Thr Ser Gln Ser Glu Glu Thr
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                                    610
                                                        615
Arg Val Trp His Arg Arg Asp Gly Lys Trp Gln Asn Val His Phe
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His Cys Ser Gly Ala Pro Val Ala Pro Leu Gln
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<210> 24

<211> 588

<212> PRT

<213> Homo sapiens

<220>

<221> misc_feature

<223> Incyte ID No: 067967

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	-	_		35		Met		_	40		-	-		45
-				50	-	Asn			55					60
Arg	Leu	Asn	Met	Thr 65	Thr	Glu	Gln	Phe	Thr 70	Gly	Asp	His	Thr	Gln 75
His	Phe	Leu	Asp	Gly 80	Gly	Glu	Met	Lys	Va1 85	Glu	Gln	Leu	Phe	Gln 90
Glu	Phe	Gly	Asn	Arg 95	Lys	Ser	Asn	Thr	Ile 100	Gln	Ser	Asp	Gly	Ile 105
Ser	Asp	Ser	Glu	Lys 110	Cys	Ser	Pro	Thr	Val 115	Ser	Gln	Gly	Lys	Ser 120
Ser	Asp	Суѕ	Leu	Asn 125	Thr	Val	Lys	Ser	Asn 130	Ser	Ser	Ser	Lys	Ala 135
Pro	Lys	Val	Val	Pro 140	Leu	Thr	Pro	Glu	Gln 145	Ala	Leu	Lys	Gln	Tyr 150
-				155		Tyr		-	160					165
Pro	Glu	Ile	Tyr	Phe 170	Val	Gly	Pro	Asn	Ala 175	Lys	Lys	Arg	His	Gly 180
		_	_	185		Asn	_	_	190	_	_		_	195
				200		Arg			205					210
Val	Leu	Lys	Ile	Ile 215	Gly	Lys	Gly	Ser	Phe	Gly	Gln	Val	Ala	Arg 225
Val	Tyr	Asp	His	Lys 230	Leu	Arg	Gln	Tyr	Val 235	Ala	Leu	Lys	Met	Val 240
Arg	Asn	Glu	Lys	Arg 245	Phe	His	Arg	Gln	Ala 250	Ala	Glu	Glu	Ile	Arg 255
Ile	Leu	Glu	His	Leu 260	Lys	Lys	Gln	Asp	Lys 265	Thr	Gly	Ser	Met	Asn 270
Val	Ile	His	Met	Leu 275	Glu	Ser	Phe	Thr	Phe 280	Arg	Asn	His	Val	Cys 285

Met Ala Phe Glu Leu Leu Ser Ile Asp Leu Tyr Glu Leu Ile Lys Lys Asn Lys Phe Gln Gly Phe Ser Val Gln Leu Val Arg Lys Phe Ala Gln Ser Ile Leu Gln Ser Leu Asp Ala Leu His Lys Asn Lys Ile Ile His Cys Asp Leu Lys Pro Glu Asn Ile Leu Leu Lys His His Gly Arg Ser Ser Thr Lys Val Ile Asp Phe Gly Ser Ser Cys Phe Glu Tyr Gln Lys Leu Tyr Thr Tyr Ile Gln Ser Arg Phe Tyr Arg Ala Pro Glu Ile Ile Leu Gly Ser Arg Tyr Ser Thr Pro Ile Asp Ile Trp Ser Phe Gly Cys Ile Leu Ala Glu Leu Leu Thr Gly Gln Pro Leu Phe Pro Gly Glu Asp Glu Gly Asp Gln Leu Ala Cys Met Met Glu Leu Leu Gly Met Pro Pro Pro Lys Leu Leu Glu Gln Ser Lys Arg Ala Lys Tyr Phe Ile Asn Ser Lys Gly Ile Pro Arg Tyr Cys Ser Val Thr Thr Gln Ala Asp Gly Arg Val Val Leu Val Gly Gly Arg Ser Arg Arg Gly Lys Lys Arg Gly Pro Pro Gly Ser Lys Asp Trp Gly Thr Ala Leu Lys Gly Cys Asp Asp Tyr Leu Phe Ile Glu Phe Leu Lys Arg Cys Leu His Trp Asp Pro Ser Ala Arg Leu Thr Pro Ala Gln Ala Leu Arg His Pro Trp Ile Ser Lys Ser Val Pro Arg Pro Leu Thr Thr Ile Asp Lys Val Ser Gly Lys Arg Val Val Asn Pro Ala Ser Ala Phe Gln Gly Leu Gly Ser Lys Leu Pro Pro Val Val Gly Ile Ala Asn Lys Leu Lys Ala Asn Leu Met Ser Glu Thr Asn Gly Ser Ile Pro Leu Cys Ser Val Leu Pro Lys Leu Ile Ser

<210> 25

<211> 389

<212> PRT

<213> Homo sapiens

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<221> misc_feature

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Arg Lys Ile Lys His Glu Asn Ile Val Ala Leu Glu Asp Ile Tyr
                110
                                     115
                                                         120
Glu Ser Pro Asn His Leu Tyr Leu Val Met Gln Leu Val Ser Gly
                125
                                     130
Gly Glu Leu Phe Asp Arg Ile Val Glu Lys Gly Phe Tyr Thr Glu
                140
                                     145
                                                         150
Lys Asp Ala Ser Thr Leu Ile Arg Gln Val Leu Asp Ala Val Tyr
                155
                                     160
Tyr Leu His Arg Met Gly Ile Val His Arg Asp Leu Lys Pro Glu
                                     175
                170
Asn Leu Leu Tyr Tyr Ser Gln Asp Glu Glu Ser Lys Ile Met Ile
                185
                                     190
Ser Asp Phe Gly Leu Ser Lys Met Glu Gly Lys Gly Asp Val Met
                200
                                     205
Ser Thr Ala Cys Gly Thr Pro Gly Tyr Val Ala Pro Glu Val Leu
                215
                                     220
Ala Cln Lys Pro Tyr Ser Lys Ala Val Asp Cys Trp Ser Ile Gly
                230
                                     235
                                                         240
Val Ile Ala Tyr Ile Leu Cys Gly Tyr Pro Pro Phe Tyr Asp
                                     250
                245
Glu Asn Asp Ser Lys Leu Phe Glu Gln Ile Leu Lys Ala Glu Tyr
                                                         370
                260
                                     265
Glu Phe Asp Ser Pro Tyr Trp Asp Asp Ile Ser Asp Ser Ala Lys
                275
                                     280
                                                         285
Asp Phe Ile Arg Asn Leu Met Glu Lys Asp Pro Asn Lys Arg Tyr
                290
                                     295
Thr Cys Glu Gln Ala Ala Arg His Pro Trp Ile Ala Gly Asp Thr
                305
                                     310
Ala Leu Asn Lys Asn Ile His Glu Ser Val Ser Ala Gln Ile Arg
                320
                                     325
                                                         330
Lys Asn Phe Ala Lys Ser Lys Trp Arg Gln Ala Phe Asn Ala Thr
                                     34C
                335
                                                         345
Ala Val Val Arg His Met Arg Lys Leu His Leu Gly Ser Jer Leu
                350
                                     355
Asp Ser Ser Asn Ala Ser Val Ser Ser Ser Leu Ser Leu Ala Ser
                                     370
                365
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Gln Lys Asp Cys Ala Tyr Val Ala Lys Pro Glu Ser Leu Ser
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<211> 343

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<223> Incyte ID No: 283746

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Cys Ser Phe Leu Asp Asp Leu Leu Glu Leu Arg Asp Glu Glu Leu
                140
                                     145
Ser Lys Glu Ser Gln Glu Thr Asn Trp Phe Ser Ala Pro Ser Ala
                                     160
                155
Leu Arg Val Tyr Gly Gln Tyr Leu Asn Leu Asp Lys Asp His Asn
                170
                                     175
Gly Met Leu Ser Lys Glu Glu Leu Ser Arg Tyr Gly Thr Ala Thr
                185
                                     190
Met Thr Asn Val Phe Leu Asp Arg Val Phe Gln Glu Cys Leu Thr
                200
                                     205
Tyr Asp Gly Glu Met Asp Tyr Lys Thr Tyr Leu Asp Phe Val Leu
                215
                                     220
                                                          225
Ala Leu Glu Asn Arg Lys Glu Pro Ala Ala Leu Gln Tyr Ile Phe
                230
                                     235
Lys Leu Leu Asp Ile Glu Asn Lys Gly Tyr Leu Asn Val Phe Ser
                                     250
                                                         255
                245
Leu Asn Tyr Phe Phe Arg Ala Ile Gln Glu Leu Met Lys Ile His
                260
                                     265
Gly Gln Asp Pro Val Ser Phe Gln Asp Val Lys Asp Glu Ile Phe
                275
                                     280
                                                         285
Asp Met Val Lys Pro Lys Asp Pro Leu Lys Ile Ser Leu Gln Asp
                290
                                     295
Leu Ile Asn Ser Asn Gln Gly Asp Thr Val Thr Thr Ile Leu Ile
                305
                                     310
Asp Leu Asn Gly Phe Trp Thr Tyr Glu Asn Arg Glu Ala Leu Val
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                                     325
Ala Asn Asp Ser Glu Asn Ser Ala Asp Leu Asp Asp Thr
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<312> PRT

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<221> misc_feature

<223> Incyte ID No: 2696537

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220

Tyr Ser Cys Leu Phe Gly Thr Phe Leu Cys Asn Ser Glu Gln Gln

```
230
                                     235
Arg Gly Lys Glu Asn Leu Pro Lys Arg Thr Val Ser Leu Trp Ser
                                     250
                                                          255
                245
Tyr Ile Asn Ser Gln Leu Glu Asp Phe Thr Asn Pro Leu Tyr Gly
                260
                                     265
                                                          270
Ser Tyr Ser Asn His Val Leu Tyr Pro Val Ala Ser Met Arg His
                                     280
                                                          2.85
                275
Leu Glu Leu Trp Val Gly Tyr Tyr Ile Arg Trp Asn Pro Arg Met
                290
                                     295
Lys Pro Gln Glu Pro Ile His Asn Arg Tyr Lys Glu Leu Leu Ala
                305
                                     310
Lys Arg Ala Glu Leu Gln Lys Lys Val Glu Glu Leu Gln Arg Glu
                320
                                     325
Ile Ser Asn Arg Ser Thr Ser Ser Ser Glu Arg Ala Ser Ser Pro
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                                     340
Ala Gln Cys Val Thr Pro Val Gln Thr Val Val
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Val Ala Glu Ala Asp Ile Ile Ser Thr Val Glu Phe Asn Tyr Ser
                 35
                                      40
Gly Asp Leu Leu Ala Thr Gly Asp Lys Gly Gly Arg Val Val Ile
                                      55
                 50
                                                           50
Phe Gln Arg Glu Gln Glu Asn Lys Ser Arg Pro His Ser Arg Gly
                 65
Glu Tyr Asn Val Tyr Ser Thr Phe Gln Ser His Glu Pro Glu Phe
                 80
                                      85
                                                           90
Asp Tyr Leu Lys Ser Leu Glu Ile Glu Glu Lys Ile Asn Lys Ile
                 95
                                     100
Arg Trp Leu Pro Gln Gln Asn Ala Ala His Phe Leu Leu Ser Thr
                110
                                     115
                                                          120
Asn Asp Lys Thr Ile Lys Leu Trp Lys Ile Ser Glu Arg Asp Lys
                125
                                     130
Arg Ala Glu Gly Tyr Asn Leu Lys Asp Glu Asp Gly Arg Leu Arg
                140
                                     145
Asp Pro Phe Arg Ile Thr Ala Leu Arg Val Pro Ile Leu Lys Pro
                155
                                     160
Met Asp Leu Met Val Glu Ala Ser Pro Arg Arg Ile Phe Ala Asn
                                     175
                170
Ala His Thr Tyr His Ile Asn Ser Ile Ser Val Asn Ser Asp His
                185
                                     190
                                                          195
Glu Thr Tyr Leu Ser Ala Asp Asp Leu Arg Ile Asn Leu Trp His
                200
                                     205
Leu Glu Ile Thr Asp Arg Ser Phe Asn Ile Val Asp Ile Lys Pro
                215
                                     220
Ala Asn Met Glu Glu Leu Thr Glu Val Ile Thr Ala Ala Glu Phe
                230
                                     235
                                                          240
His Pro His Gln Cys Asn Val Phe Val Tyr Ser Ser Lys Gly
                                     250
                245
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Thr Ile Arg Leu Cys Asp Met Arg Ser Ser Ala Leu Cys Asp Arg
                260
                                     265
                                                          270
His Ser Lys Phe Phe Glu Glu Pro Glu Asp Pro Ser Ser Arg Ser
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                                                          285
                                     280
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Phe Phe Ser Glu Ile Ile Ser Ser Ile Ser Asp Val Lys Phe Ser

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290
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His Ser Gly Arg Tyr Met Met Thr Arg Asp Tyr Leu Ser Val Lys
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                                     310
                                                         315
Val Trp Asp Leu Asn Met Glu Ser Arg Pro Val Glu Thr His Gln
                320
                                     325
                                                         330
Val His Glu Tyr Leu Arg Ser Lys Leu Cys Ser Leu Tyr Glu Asn
                                                         345
                335
                                     340
Asp Cys Ile Phe Asp Lys Phe Glu Cys Cys Trp Asn Gly Ser Asp
                350
                                     355
                                                         360
Ser Ala Ile Met Thr Gly Ser Tyr Asn Asn Phe Phe Arg Met Phe
                                     370
                                                         375
                365
Asp Arg Asp Thr Arg Arg Asp Val Thr Leu Glu Ala Ser Arg Glu
                380
                                     385
Ser Ser Lys Pro Arg Ala Ser Leu Lys Pro Arg Lys Val Cys Thr
                395
                                                         405
                                     400
Gly Gly Lys Arg Arg Lys Asp Glu Ile Ser Val Asp Ser Leu Asp
                410
                                     415
Phe Asn Lys Lys Ile Leu His Thr Ala Trp His Pro Val Asp Asn
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                                                         435
Val Ile Ala Val Ala Ala Thr Asn Asn Leu Tyr Ile Phe Gln Asp
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cagattgcca agaaaagacc tcaccaaaag gtgtcgayaa ccctgctgta caagagagta 180
accaaaaaat gttaggtcct cctttggagg tgctgaaaac gttagcctct aaaagaaatg 240
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ggagaagtgg ategaeggge geetggagga getgtaeege ggeatggagg eagaeatgee 240
cgatgagatc aacattgatg aattgttgga gttagagagt gaagaggaga gaagccggaa 300
aatccaggga ctcctgaagt catgtgggaa acctgtcgag gacttcatcc aggagctgct 360
ggcaaagett caaggeetee acaggeagee eggeeteege cageeaagee eeteecaega 420
cggcagcete agececetee aggaceggge eeggactget caeceetgae eetettgeae 480
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gettettaca aaactagaga aaattgggaa gggeteettt ggagaggtgt teaaaggeat 180
tgacaatcgg actcagaaag tggttgccat naagatcatt gatctggaag aagctgaaga 240
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aaccaaatat tatggateet atetgaagga tacaaaatta tggataataa tggaatatet 360
tggtggagge teegeactag atetattaga acetggeega ttagatgaaa eecagatege 420
tactatatta agagaaatac tgaaaggact cgattatctc cattcggaga agaaaatcca 480
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ctttggcgtg getggeeage tgacagaeae ecagateaaa aggaacaeet tegtgggeae 600
cccattctgg atggcacccg aggtcatcaa acagtcggcc tatgactcga aggcagacat 560
stggtccctg ggcataacag stattgaact tgcaagaggg gaaccassts attssgaget 720
gcaccccatg aaagttttat teeteattee aaagaacaac ecaccgaegt tggaaggaaa 780
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ctacttgacc gageteateg acaggtacaa gagatggaag geegageaga geeatgaega 960
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